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(54) Title: **MARKER FREE TRANSGENIC PLANTS: ENGINEERING THE CHLOROPLAST GENOME WITHOUT THE USE OF ANTIBIOTIC SELECTION**

(57) Abstract: The present invention provides for a method to circumvent the problem of using antibiotic resistant selectable markers. In particular, target plants are transformed using a plastid vector which contains heterologous DNA sequences coding for a phytotoxin detoxifying enzyme or protein. The selection process involves converting an antibiotic-free phytotoxic agent by the expressed phytotoxin detoxifying enzyme or protein to yield a nontoxic compound. The invention provides for various methods to use antibiotic-free selection in chloroplast transformation.

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